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THE INCREASING IMPORTANCE OF LABOR MANAGEMENT
ON LARGE DAIRY FARMS

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Dairy farmers, researchers, and farm management extension workers are in agreement that managing the labor input on large dairy farms is an important problem. The popular press aimed at dairy farmers regularly features articles on labor management. Agricultural economists have conducted research studies in several states with the objective of better understanding labor management problems and providing some guidelines helpful to dairy farm managers. Extension workers in many states have conducted labor management training programs or included labor management as a topic in workshops for dairy farmers. The problems are recognized but we have made surprisingly little progress in the past ten years in dealing with them.

In this paper, the changing characteristics of the labor input on large dairy farms (those with more than 100 cows) are first examined. The four functions (procurement, development, motivation and maintenance) of a farm labor manager are then defined. The heart of the paper is a discussion of the implications of large dairy farm characteristics for each farm labor management function.

Changing Characteristics of Labor Input

Large dairy farms have some characteristics which are important for identifying their unique labor management problems. The expansion to a large size involves an increase in number of cows, changes in the physical plant, and changes in required

factor inputs, especially capital. The portion of the total cost of milk production per cwt. accounted for by labor decreases as herd size increases reflecting increased labor productivity.

The characteristics of labor input also can be expected to change. Specifically, the total labor input, labor efficiency, relative importance of hired labor, acceptable minimum labor quality and extent of mechanization would be expected to increase. The complexity of the operation would increase causing the labor manager to become more dependent on the skills of employees. Dependence on unpaid family labor, informality in employer-employee relationships, exclusion from Federal and state labor laws and regulations, acceptance by employees of informal and sometimes vague rules and regulations, and diversification of employee tasks within the farm business would be expected to decrease.

These expected changes suggest that a labor manager's ability to adjust to and handle the responsibilities associated with a large dairy farm will be an important factor in determining overall management success. However, there is no assurance that the management skills which facilitated growth of the business or gaining control of a large business are necessarily the same as the skills necessary to manage the large business on a continuous basis. The importance of some skills will change little, e.g. production management, breeding, disease control and animal selection. Some skills or attributes of the manager will become less important, e.g. the ability to handle strenuous physical work, the stamina necessary for long work days and work weeks and

the ability to make do with inadequate physical facilities. But most importantly, some skills will increase in importance, e.g. financial management and labor management.

What Do Farm Labor Managers Do?

In a study of labor management practices on New York dairy farms, Kohl identified ten areas of labor management. These areas are a priori and are based on his review of farm labor studies, labor management texts and nonfarm firm labor studies:

1. Wage and salary administration
2. Recruitment and hiring of personnel
3. Interpersonal communications
4. Training and development
5. Manpower planning
6. Record keeping systems
7. Organizational structure
8. Health and safety
9. Motivation and discipline
10. Working arrangements

Such a list suggests there is a wide variety of skills needed by a labor manager on a large dairy farm given the diversity within the job description. These 10 areas have considerable similarity to the labor problems identified in a Michigan study of dairy herd expansion (Speicher, Nott and Stoll). Problems encountered with labor on these expanded dairy farms included maintaining quality and quantity of output, acquiring and keeping labor, training labor properly, supervising labor closely, communicating with labor and limiting equipment breakages. In this study,

animal health, heat detection and manure handling were ranked as more serious than labor management. Four other expansion problems were less serious than labor. It is important to note that technical assistance in animal health, heat detection and manure handling is readily available to large dairy farmers. Such assistance in dealing with labor problems is very difficult to find. More importantly, animal health and heat detection problems are often related directly to labor management problems.

The activities described in these studies are consistent with a definition of farm labor management as the procurement, development, motivation, and maintenance of all people involved in the farm business as paid or unpaid employees. Procurement is the planning for, recruiting, hiring and orientation of the personnel necessary to "get the job done" given the farm enterprise, land use, crop, livestock, machinery and equipment decisions which have been made. Development is the design, conduct and evaluation of employee training activities. Motivation is stimulating employees to performances which are consistent with their own and the business' objectives. Evaluating performance, scheduling work, developing an organizational structure and compensating employees are all part of motivation. Finally, maintenance is providing the benefits, services and work environment which will build a commitment to continued employment on the farm (S. Robbins).

Procurement Implications

Procurement of personnel for a dairy farm starts with manpower planning. Human resource planning for a dairy farm is the process of estimating the number and kinds of people needed to efficiently

complete the tasks essential to the farm's achieving its overall objectives. Farm enterprise, production, and financial planning have received a great deal of attention by agricultural economists. However, our manpower planning tools and expertise have progressed little beyond the labor calendar, man equivalent concepts, labor standards and productive man work units. The large dairy farm is likely to find these tools and concepts inadequate in addressing such basic planning questions as appropriate labor productivity standards, revenue and labor cost projections, marginal value product of higher quality labor and decreasing supply of seasonal workers.

Recruitment and hiring of personnel increases in importance as the number of hiring decisions and quality of personnel increases. Therefore, increasing the size of a dairy farm is likely to increase the importance of recruitment. Labor recruitment success is finding and hiring the "right person" for a position. Simply filling a position does not constitute success. Luck is seldom the key element in recruitment success (Erven). A decision concerning a key employee for a large dairy farm often will justify a substantial investment of time by the labor manager. Hiring the right person is the first step toward development, motivation and retention success.

The increased number of employees and complexity of dairy farms also increases the importance of planning and scheduling work assignments. Therefore, human resource planning extends beyond recruiting and hiring. As the size of a dairy farm increases, there is increased need for clearly establishing and communicating supervisory responsibilities, performance standards, work assignments

and procedures for notifying a supervisor of emergency changes in work periods.

Employee Development Implications

The importance of employee training increases as the tasks on a dairy farm become more sophisticated and complex. Many tasks on a large dairy farm are complicated, difficult to learn and unfamiliar to the new employee. Untrained workers in comparison to trained workers are more likely to suffer job frustration from inability to accomplish what is expected of them. They are also more likely to suffer accidents. Trained workers are more likely to show initiative in developing further refinements in their tasks and trouble shooting to overcome impediments to their performance.

There are important implications for labor managers with little or no experience in training employees. Teaching adults is not a simple task. Attention to a step-by-step training procedure is likely to increase training effectiveness (Shapley). On large dairy farms, the variety and complexity of tasks make it particularly important to carefully develop job descriptions and teach by describing and showing rather than by just "telling them how."

Motivation Implications

Probably the most commonly asked labor management question is "How can I motivate my employees?" Motivation generally receives more attention in labor training and extension farm labor workshops than any other topic. Farm labor researchers and extension

workers have learned what farm labor managers have long known. Motivation is much more complex than simply increasing the wage rate, implementing a wage incentive plan, providing a house, or making the key employee a part-owner of the business. To be sure, there are cases when one or a combination of these strategies is effective but clearly there are many situations when strategies other than these are required to improve employee motivation.

The ineffectiveness of economic motivators has led us to the theoretical constructs of industrial psychology. There is a perceived simplicity of McGregor's Theory X-Theory Y characterization of labor managers, Maslow's hierarchy of worker needs and Herzberg's motivation-maintenance theory. However helpful these psychological theories are for understanding labor management problems, translating them into practical guidelines for farm labor managers has been difficult. The farm labor management literature commonly states the theories but seldom if ever reports validation of the theories in farm labor settings.

In spite of its limitations and lack of validation with empirical evidence, labor managers on large dairy farms are likely to find motivation theory helpful. Some of the characteristics of large dairy farms facilitate adaptation of guidelines implicit in these theories. Particularly important is the identification of the needs each employee hopes to satisfy through employment on the dairy farm. Maslow's hierarchy of needs (Maslow) and Herzberg's distinction between extrinsic and intrinsic rewards can be particularly helpful (Herzberg). These theories suggest that needs vary among employees and that the same employee will have changing needs over time, e.g. decreasing importance of job

security and increasing importance of acceptance and friendship by the labor manager. Job satisfaction through intrinsic characteristics of the job is an important motivator. The job providing a sense of achievement and recognition, the work itself, and advancement leading to additional responsibility have been found by Herzberg to provide job satisfaction and thus higher levels of motivation (Herzberg). Large dairy farms compared to smaller farms are much more likely to be able to provide these motivators because of the number of employees, financial position, growth potential and visibility in the community.

Wage incentive plans have been used by many dairy farmers as a specific strategy for motivation. Their intuitive appeal to labor managers is based on the direct tie between worker performance and compensation - an apparent short-cut to worker motivation. Their appeal to employees is based on a sense of direct control over their earnings. The employee's extra effort or improved performance benefits both employer and employee.

Some characteristics of dairy farms make wage incentive plans especially attractive. Specific tasks can be identified where quality of performance among workers can be differentiated. Some examples are identifying cows in heat, incidence of mastitis, calf birth rate, quality of milk and milk production per cow. Also, it is possible to quantify relatively easily worker performance so that there is an explicit basis for varying compensation among employees on wage incentive plans. On large farms, there are opportunities for specialization of tasks. There is also the potential for high labor efficiency because of the physical facilities and production practices which can lead to high milk production per cow. Consequently, increasing the size of a dairy farm facilitates the use of wage incentive plans.

Unlike many other farm labor management strategies, wage incentive plans have been studied in several states (Bastian; Wolfe, Boehlje and Eidman; Nixon, White and Miller; P. Robbins; Smith, Heady and Fulton). In an Ohio study, Bastian found that dairy farm employers with incentive plans had significantly lower labor turnover and greater increases in milk production in a four-year period than did employers without wage incentive plans. Workers under incentive plans had greater responsibilities than workers not compensated with a wage incentive plan. The goals employers identified for their wage incentive plans were largely accomplished. In a study of full-time hired labor in Oklahoma, Wolfe, Boehlje and Eidman reported employees with an incentive program had \$2,321 higher average total income than employees not on incentive plans. They also found that employees on incentive plans had higher skill ratings than other employees but did not work more hours. Interestingly, the incidence of wage incentive programs was not associated with farm size.

Maintenance Implications

Maintenance as a function of farm labor management is the process of providing benefits, services and a safe work environment for employees. The motivation function attempts to stimulate individual worker performance. Benefits, services and the work environment are available to all employees independent of their level of performance. Although not motivators, they can have a major impact on worker recruitment, absenteeism, and turnover. Maintenance strategies are important because of the costs associated with recruiting, hiring, and training new workers, and the costs

from disruption and unexpected labor shortages which accompany absenteeism and resignations.

Fringe benefits are commonly provided farm workers (Bratton; Brown; Keen and Wilson; Nixon, White and Miller; Rosedale and Mamer; Smith, Heady and Fulton; P. Robbins; Westcott; Woolf and Brown). These fringe benefits usually account for a substantial portion of the total compensation received by employees. Some of these benefits are legally required but most are voluntary.

The increasing number of labor laws and regulations (legally required benefits) has imposed additional costs and recordkeeping requirements on farm employers. Large dairy farms are more likely to be influenced by these labor laws and regulations than smaller dairy farms because of the coverage provisions. Some legally required benefits apply to all farm employers in most states, e.g. workers' compensation, social security, but several others apply only to relatively large farm employers, e.g. Federal minimum wage, and unemployment compensation (Erven, et.al.). These benefits add to the cost of labor on large dairy farms compared to smaller dairy farms. However, they also improve the attractiveness of employment on large dairy farms which facilitates worker recruitment.

There are several additional fringe benefits which may or may not be offered by employers: housing, utilities, sick leave, paid vacation, retirement program, life and health insurance, garden plot and farm commodities such as milk and meat. These benefits are often attractive to employers because of the substitution of noncash items for cash wages. However, benefits which

are given for the advantage of the employer may be a source of job dissatisfaction if they are of little or no value to the worker. Large farm employers compared to smaller employers may find it much easier to provide some of these benefits. With several employees, it may be feasible to establish a group insurance program. It may also be possible to have sick leave and paid vacation benefits because of the feasibility of other workers filling in for the absent worker.

Summary

Labor management is more important on large dairy farms than on smaller farms because of the greater number of people involved, the more important role of hired workers and the need for higher quality workers. However, there are several characteristics of large dairy farms which facilitate the effective procurement, development, motivation and maintenance of employees. To answer directly the question posed in the title of this symposium, large dairy farms should be the most effective in labor management.

To date, our understanding of labor management problems on large dairy farms and suggestion of strategies for resolving these problems are based almost entirely on theories not validated in farm settings. Practically all of our farm labor studies have been designed to describe employer, employee and farm employment characteristics. There has been little opportunity for additive effects from the research. A fruitful area of work for farm management economists during the next few years could certainly be in the development of and testing of a variety of hypotheses about relationships between farm labor management problems and strategies to procure, develop, motivate and maintain employees.

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